

ORIGINAL

BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

ORIGINAL
FILE

IN THE MATTER OF

) MM DOCKET NO. 87-268
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ADVANCED TELEVISION SYSTEMS
AND THEIR IMPACT UPON THE
EXISTING TELEVISION BROADCAST
SERVICE

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

To: The Commission

COMMENTS OF THE TRINITY BROADCASTING NETWORK

Trinity Christian Center of Santa Ana, Inc., d/b/a Trinity Broadcasting Network ("Trinity"), hereby comments upon the Second Further Notice of Proposed Rule Making, FCC 92-332, released in the above-captioned docket on August 14, 1992 (Second Further Notice).^{1/}

^{1/}Trinity, and its related entities, are the licensees of the following full power television stations:

KTBN-TV, Santa Ana, California, Licensed to Trinity Christian Center of Santa Ana, Inc., d/b/a Trinity Broadcasting Network

WDLI-TV, Inc., Canton, Ohio, Licensed to Trinity Christian Center of Santa Ana, Inc., d/b/a Trinity Broadcasting Network

WHSG-TV, Monroe, Georgia, Licensed to Trinity Christian Center of Santa Ana, Inc., d/b/a Trinity Broadcasting Network

KPAZ-TV, Phoenix, Arizona, Licensed to Trinity Broadcasting of Arizona, Inc.

WHFT-TV, Miami, Florida, Licensed to Trinity Broadcasting of Florida, Inc.

WCLJ-TV, Bloomington, Indiana, Licensed to Trinity Broadcasting of Indiana, Inc.

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1. The Second Further Notice is the sixth in a series of Commission steps since 1987 regarding the development of advanced or high definition television (HDTV) and its impact upon local broadcast systems. This is Trinity's first submission of written comments since it has been satisfied that the materials and positions put forward by the Association for Maximum Service Television, Inc. and the One-Hundred and One Broadcast Organizations have properly presented the views of broadcasters.^{2/}

2. However, these organizations and their comments have rightly focussed on the predominantly technical issues involving the assignment mechanism for ATV channels, and conversion of operating facilities of current broadcasters from NTSC to ATV service. Trinity does not believe, however, that the Commission has adequately recognized the real cost impact conversion to ATV

^{1/}(...continued)

WKOI-TV, Richmond, Indiana, Licensed to Trinity Broadcasting of Indiana, Inc.

WTBY-TV, Poughkeepsie, New York, Licensed to Trinity Broadcasting of New York, Inc.

KTBO-TV, Oklahoma City, Oklahoma, Licensed to Trinity Broadcasting of Oklahoma City, Inc.

KDTX-TV, Dallas, Texas, Licensed to Trinity Broadcasting of Texas, Inc.

KTBW-TV, Tacoma, Washington, License to Trinity Broadcasting of Washington.

^{2/}Particularly the Joint Broadcaster Comments Filed by One-Hundred and One Broadcast Organizations on July 17, 1992 in response to the Second Report and Order/Further Notice of Proposed Rulemaking, FCC 92-174, released May 8, 1992.

will have on local broadcasters. Appendix C of the Second Further Notice acknowledges that the cost of equipment to operate on the new ATV channels will vary from "\$750,000 upwards to \$10,000,000," with the conclusion of where an individual station fits in that huge range depending upon "the degree to which the station becomes involved in ATV programming and origination." The real cost to convert to ATV service, however, will nearly universally cost upward of \$10,000,000 for every local broadcast station. Anything less would not permit local program production and origination--the linchpin of assuring an incumbent's "renewal expectancy."

3. Attached hereto is a statement from W. Benton Miller, Trinity's Vice President, Engineering. Mr. Miller notes that the projected costs per station for Trinity to merely obtain transmission equipment for a single station will cost \$910,000. Such equipment, which includes a transmitter, antenna, transmission line, a passive RF system, and associated equipment, would merely provide "pass-through" programming. Mr. Miller goes on to properly note, however, that the public interest is not adequately served by simply "passing through" programming and therefore the cost for providing local origination and program production must be factored in for all stations. Mr. Miller projects, as the Commission did, that such costs will reach upwards of \$10,000,000. In the case of Trinity, therefore, the cost of implementing HDTV, without considering the continued parallel costs of operating its NTSC facilities during the 15 year transition period, would be in excess of \$120,000,000.

4. Trinity is a nonprofit public charity supported by the free-will gifts and donations of its supporters. It has taken Trinity twenty years to grow to its current position of being the licensee of eleven full power commercial television stations.^{3/} The Commission's current ATV plan would essentially require Trinity within the span of six years to file for and complete construction of ATV facilities that will duplicate its current NTSC facilities, and then dual operate those facilities for up to an additional nine years. Adding significant operating costs to the huge capital costs of constructing ATV service puts nonprofit and local broadcasters in the position where Trinity believes the only way the Commission can reasonably expect them to have any fair chance of converting to ATV service is for the Commission to modify the current license term for television (NTSC and ATV) from five to fifteen years, or the date when NTSC service is phased out, whichever is longer. Such a change would allow broadcasters to better obtain financing for ATV construction, and help justify the risk and considerable expense of operating parallel NTSC and ATV facilities.

5. Such a change in the license term would also alleviate, at least during the conversion period, some of the capital requirements by allowing broadcasters to gradually phase-in acquiring ATV production and program origination equipment over a

^{3/}Trinity is also the licensee or permittee of over 200 television translator and low power television stations. Although the cost of converting these facilities has not been projected at this time, it too will be astronomical.

longer period of time without the fear that the failure to do so immediately would undermine a station's "renewal expectancy." It would also permit a quicker conversion to ATV service since broadcasters could allocate greater resources to their ATV operation, at the expense of their NTSC operation, without the fear that doing so would expose their NTSC license (and thus the ATV license) during the conversion period. This is a reasonable request which would not only make it possible for television operators to make the ATV conversion, but it is consistent with the rationale of issuing 15 to 20 year franchises to cable facilities. While broadcasting is not cable, and it provides a unique and free public service, in the sense that major capital investment will have to be made in order to bring television service into the 21st century, a longer license term is necessary. Once NTSC service is phased out, the Commission could return to the shorter five year license periods.

6. Such a temporary change is in the public interest since it encourages existing broadcasters who "possess the know-how and experience necessary to implement ATV swiftly and efficiently." Second Report and Order/Further Notice of Proposed Rulemaking, 7 FCC Rcd. 3342, 70 R.R. 2d 1107 (1992). Extending the license term for incumbent broadcasters during the transition term is also consistent with the Supreme Court's decision in Ashbacker Radio Corp. v. FCC, 326 U.S. 327 (1945). Id.

WHEREFORE, in consideration of the premises, Trinity Broadcasting Network urges the Commission to automatically extend

the current license term for television facilities seeking an ATV authorization from five to fifteen years, or until the final phase-out of NTSC service.

Respectfully submitted,

**TRINITY CHRISTIAN CENTER OF SANTA
ANA, INC., d/b/a TRINITY BROAD-
CASTING NETWORK**

By: 

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November 16, 1992

ATTACHMENT 1

STATEMENT OF W. BENTON MILLER

ATV Technical Facilities Cost Projection
W. Ben Miller, Vice President, Engineering
Trinity Christian Center of Santa Ana, Inc.
d/b/a Trinity Broadcasting Network, Inc.

I am currently engaged in the capacity of Vice President in charge of Engineering for Trinity Broadcasting Network. I have 22 years of experience in the broadcasting industry, 12 of which I have been personally responsible for the construction and technical operation of over 200 full service TV and low power TV stations, as well as the technical operation of AM, FM and international shortwave stations within the US and in various foreign countries. All on behalf of Trinity. I have also been personally responsible for the construction of 10 full service television stations for other organizations in the capacity of technical consultant. As a result of my experience in this field, I consider myself to be knowledgeable of equipment utilized in television studios and transmission facilities and I am qualified to project cost estimates and budgets for constructing facilities as well as purchasing and installing transmission and studio equipment for television broadcast stations.

Transmission Facilities Costs

In discussing the issue of the cost of transmission equipment needed to transmit an Advanced Television (ATV) or High Definition TV (HDTV) signal in a hypothetical city, I am assuming the use of one of the digital systems presently under consideration by the Advisory Committee on Advanced Television Service for use in terrestrial broadcasting in the US. Also, an assumption is made that a single channel in the UHF band from the Commission's *Second Further Notice of Proposed Rulemaking*, MM Docket 87-268, Appendix D, will be used for transmission of the ATV signal and that the ATV signal must serve the same viewing audience.

Other assumptions include that the station will not be able to use another tower for the ATV signal and will have to use it's existing tower. Further, that a new transmission line and antenna system will have to be integrated into the system without creating an overload on the tower.

The grade A signal of an analog UHF NTSC signal is 74 dBu contour and the digital ATV equivalent is assumed to be 53 dBu. The effective radiated power to reach an equivalent distance is assumed to be between 250 and 500 kw.¹ I will consider the more conservative figure of 250 kw.

¹ Antenna and Transmission Line for the Simulcast Period by T. J. Vaughan and J. Banker, Micro Communications, Inc. 1992 NAB HDTV World Conference Proceedings

Total system costs for the hypothetical ATV transmission facility is based on the following estimates²:

Transmitter cost:	\$350,000
Passive RF System:	100,000
Transmission Line:	150,000
Antenna:	140,000
Tower Analysis:	15,000
Tower Modification:	80,000

Totals:	\$730,000
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Also, not considered in the above estimate are the following:

Electrical Additions to Facility:	\$50,000
Studio to Transmitter Link:	40,000
ATV Demodulators:	40,000
Remote Control Equipment:	20,000
Audio and Video Monitoring Equipment:	15,000
Waveform/ Vector Monitoring Equipment:	15,000

Totals:	\$180,000
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Grand Total for Both:	\$910,000
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Local Origination of Programming

"A new study of the cost of HDTV conversion by Darby Associates, Washington was provided by the Association for Maximum Service Television. The study placed it in a range of \$1.5 million just to pass through the signal, to as much as \$12 million to have a fully functional HDTV station."³

The National Association of Broadcasters in a recent communication with the Commission indicates that they expect costs for transmission equipment to be in the \$1 million to \$2 million range, and production equipment and local programming costs could be as high as \$10 million to \$12 million. As the public interest is not adequately served by simply "passing through" programming, attention must be turned to local origination of programming, and therefore the costs of replacement equipment for the studio. Very

²Location and Costs of HDTV - Antenna System, Micro Communications paper presented to the NAB 1992 HDTV-World Conference

³Howard Fields, "Television Broadcast," August 1992, p.12

little of the NTSC equipment infrastructure will be useable for origination and distribution of the full-bandwidth ATV signal in the studio.

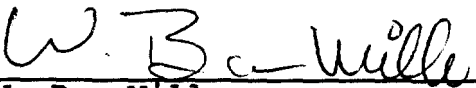
An assumption will be made that it is likely that a spectrum conservative digital video compression scheme will be utilized in the system which will be chosen by the Advisory Committee on Advanced Television Service for use in final transmission. However, ATV studio equipment will likely utilize full bandwidth to minimize signal degradation at all stages prior to transmission.

Conclusion

In evaluating ATV studio equipment which is now on the market, as well as discussions with manufacturers about ATV products in the planning stage, I will state that the figures projected by AMST and the NAB are quite realistic and that the full financial impact to a hypothetical Trinity Broadcasting station could, indeed be in the \$10 million to \$12 million range when full transmission and local origination capability is realized.

It is readily apparent that such costs as I have described here dwarf those of constructing similar NTSC facilities. With many commercial television broadcast entities grappling on multiple fronts with reduced audience shares caused by competing technologies, and with reduced profitability caused by today's financial realities, many wonder about their ability to absorb the cost of implementing ATV. Moreover, for Trinity Broadcasting, full implementation of ATV will require that funds in excess of \$120 million be borne by a non-profit public charity. To put it succinctly, I have grave doubts that TBN or any non-profit public charity not receiving government subsidies will be able to bear such an unrealistic financial hardship.

Submitted by:


W. Ben Miller
Vice President, Engineering
Trinity Christian Center of Santa Ana, Inc.
d/b/a Trinity Broadcasting Network, Inc.

November 12, 1992